REMARKS

Claims 1-51 are pending and under consideration. Claims 1-9 are being currently amended. The amendments of Claim 1-9 and rejections of the claims are addressed in detail below.

Amendments of the Claims

As suggested by the Examiner, Claims 1-9 are amended to more accurately recite the invention. In particular, the interference maximum or minimum of transmission or reflection for the reflected or transmitted light is provided *at the exit of the front panel of the display*. Applicant submits that the amendments do not introduce any new matter.

Claim Rejection under 35 U.S.C. §§ 102(b) and 103(a):

Claims 1-51 are rejected under 35 U.S.C. § 102(b) and § 103(a) as being anticipated or alternatively unpatentable over by EP 0961138 to Miroshin *et al.* Applicant respectfully traverses.

In the Office Action, the Examiner stated that "'138 teaches that the liquid crystal element is based on the output of the polarizer (abstract). Hence the output at the exit of the display corresponds to the output of the polarizer, and has the interference extremum for at least one linearly polarized component of light, for at least one wavelength of light transmitted." Applicant respectfully disagrees.

In EP '138 (Abstract), Miroshin *et al.* teach a polarizer and a liquid crystal indicating (LCI) element based on such polarizer. At least one *birefringent anisotropically absorbing layer* has at least one refraction index that grows as the polarized light wavelength increases, *i.e.* having the abnormal dispersion. In other words, Miroshin *et al.* teach the characteristics of birefringent anisotropically absorbing layers, but not liquid crystal material, which is *not* an anisotropically absorbing layer.

Miroshin *et al.* teach light polarizers and devices for displaying information based on such polarizers, in particular to a liquid crystal information display based on polarizers. However, Miroshin *et al.* do not teach or suggest a liquid crystal information display comprising

a front panel, a rear panel, and a layer of a liquid crystal material between the front and rear panels, wherein *the layer of liquid crystal* has parameters providing interference extremum *at the exit of the front panel facing an observer*. In sharp contrast to Miroshin *et al.* which teach a *polarizer* of interference type providing interference extremum *at the output of the polarizer*, in the present invention, the extremum is at the *exit of the front panel*, and the extremum is provided by *parameters of a layer of liquid crystal material, as* recited in Claim 1, or by parameters of a layer of liquid crystal materials and optical parameters of functional layers, as recited in Claims 4-17 of the present invention. Miroshin *et al.* only teach selection of thickness and interference order for *the birefringent layers* to obtain interference extremum at the *output of the polarizer*. Miroshin *et al.* do not provide any teaching and suggestion on selection of parameters of *the liquid crystal layer* to provide interference extremum at the exit of the display. Nor do Miroshin *et al.* teach or suggest selection of parameters of functional layers to provide interference extremum at the exit of the display. Applicant respectfully submits that coordinating the numbers and parameters of all layers in the display to provide the interference extremum at the exit of the display is non-obvious to one of ordinary skill in the art. In the field of the LCD designs, separate elements or separate multilayer elements might be interferential, but the final liquid crystal display is not. The reason for that is different function of different elements of LCD. In the prior art, only separate layers are considered in improving performance of liquid crystal displays. Miroshin *et al.* only teach a polarization-phase multiplayer device. However, Miroshin *et al.* do not teach or suggest a LCD as a whole device, including polarizing layers, liquid crystals, and other functional layers.

In the display recited in instant Claim 1, the parameters of the liquid crystal material in LCD are selected, as well as the functional layers to optimize the performance of the display. As described in the Specification at page 4, lines 11-23, the performance of the liquid crystal display is optimized based in particular on the open and closed states of the liquid crystal material, as well as on the optical thickness and sequence of functional layers. Also, referring to Figures 1 and 2 of the application, Layer 2 presents a layer of liquid crystal material. The liquid crystal material is a dynamic element of a liquid crystal display and changes its optical characteristics under the electrical field application (see for example page 4, lines 13-16). In the display recited in instant Claim 1, the parameters of the liquid crystal material layer are selected to provide

interference maximum or minimum, as well as the parameters of all layers of the display. It is not obvious for one of ordinary skill in the art that the liquid crystal material is considered as an element for optimization. To the best of Applicant's knowledge, the parameters of a liquid crystal material have not been considered in providing interference maximum or minimum at the exit of the display.

In the Office Action, the Examiner further stated that electrode layers in a display can be anisotropic as evidenced by US 4,719,152. Applicant respectfully submits that the '152 patent does not teach or suggest anything on "anisotropic electrodes." The '152 patent teaches only a transparent conductive device based on a transparent conductive layer built-up material. This multilayer structure is formed in an evaporator by successive deposition of corresponding materials (metals or oxides). This layer possesses *isotropic* properties (conductivity).

Accordingly, Applicant respectfully requests withdrawal of the rejection of Claims 1-51 under 35 U.S.C. 102(b) and 103(a).

Based on the foregoing, Applicants respectfully submit that the claims of the present application are in condition for allowance. An early indication of the same is therefore respectfully requested. If any matters can be resolved by telephone, the Examiner is invited to call the undersigned attorney at the telephone number listed below. The Commissioner is authorized to charge any additional required fees, or credit any overpayment, to Dorsey & Whitney LLP Deposit Account No. 50-2319 (Order No. A-71153/AJT/TJH (463031-8)).

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Tianjun Hou
Reg. No. 51,821

DORSEY & WHITNEY LLP
Suite 3400, 4 Embarcadero Center
San Francisco, CA 94111-4187
Telephone: (650) 494-8700